REMARKS

Claims 1-5 are presented for examination. Claims 6-12 are withdrawn from consideration.

To expedite prosecution, claim 1 has been amended to include the subject matter of claim 4. Claim 4 has been cancelled without prejudice or disclaimer.

Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Makino et al. in view of the Krauss et al. publication. This rejection is respectfully traversed for the following reasons.

Claim 1, as amended, recites a high-frequency amplifier connectable to a non-reciprocal circuit element having an input impedance lower than an output impedance. The amplifier comprises:

-a substrate;

- an amplifier element provided on said substrate for receiving and amplifying an input signal;

- a harmonic processing circuit provided on said substrate for providing a proper output load of harmonics included in an output signal from said amplifier element to improve an efficiency of said amplifier element; and

- a filter element provided on said substrate to receive an output from said harmonic processing circuit for selectively passing a signal to be supplied to said non-reciprocal circuit element by using a predetermined frequency as a cutoff frequency.

The claim specifies that first and second via holes are formed in said substrate for connection of a front side of said substrate with a ground electrode provided on a rear side of said substrate, said high-frequency amplifier further comprises said ground electrode, and

said filter element includes:

- a first signal line provided on said substrate to extend from an output of said harmonic processing circuit to said non-reciprocal circuit element;

- an inductor arranged on said first signal line;

- a second signal line provided on said first signal line to extend from a first node on an input side of said inductor to said ground electrode via said first via hole;

- a first capacitor provided in said second signal line on said substrate;

- a third signal line provided on said first signal line to extend from a second node on an output side of said inductor to said ground electrode via said second via hole; and

- a second capacitor provided in said third signal line on said substrate.

In the application of a rejection under 35 U.S.C. §103, it is incumbent upon the Examiner to factually support a conclusion of obviousness. The Examiner admits that the features recited in claim 4 and incorporated into claim 1 are not disclosed by the prior art. However, he contends that it would have been obvious for the capacitor lines of the filter element 6 and amplifier of Makino to have been connected/extended through vias to a ground plane on the bottom of the substrate.

It is respectfully submitted that the Examiner's conclusion of obviousness is unwarranted. It is well settled that the test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art. ***Cable Electric Products, Inc. v. Genmark, Inc.***, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings appear to be sufficient to one of ordinary skill in the art to suggest making the claimed

substitution or other modification. ***In re Lalu***, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984).

Neither Makino nor Krauss teaches or suggests:

- the claimed second signal line provided on the first signal line to extend from a first node on an input side of the inductor to the ground electrode via the first via hole,

- the claimed third signal line provided on the first signal line to extend from a second node on an output side of the inductor to the ground electrode via the second via hole, and

- the respective capacitors provided on the second and third signal lines.

Therefore, the combined teachings of these references are not sufficient to arrive at the claimed structure of the filter element.

Moreover, as discussed in the Response filed on February 2, 2004, Krauss' teaching that "[t]he output matching network is also often used to reduce harmonics in the output to an acceptable level (although this can be done with filters that perform no impedance conversion)" (page 418, lines 6-8) provides no reason to conclude that Makino discloses the harmonic processing circuit provided on the same substrate with the amplifier and the filter element, as claim 1 requires.

Hence, the combined teachings of Makino and Krauss are not sufficient to suggest the claimed harmonic processing circuit provided on the same substrate with the amplifier and the filter element.

Accordingly, Applicants submit that the Examiner's conclusion of obviousness with respect to the subject matter of claims 1-5 is not warranted. Therefore, claim 1, as amended, is not obvious over the prior art.

In view of the foregoing, and in summary, claims 1-3, and 5 are considered to be in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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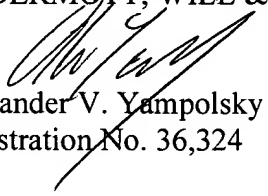

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Date: March 3, 2004